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EXAMINER

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Please find below and/or attached an Office communication concerning this application or proceeding.

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte TSUYOSHI YAMAMOTO and TOSHIHIKO HIROSHIMA

Appeal 2009-0223
Application 10/706,059
Technology Center 2600

Decided:¹ March 18, 2009

Before MAHSHID D. SAADAT, MARC S. HOFF,
and CARLA M. KRIVAK, *Administrative Patent Judges*.

KRIVAK, *Administrative Patent Judge*.

DECISION ON APPEAL

¹ The two-month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, begins to run from the decided date shown on this page of the decision. The time period does not run from the Mail Date (paper delivery) or Notification Date (electronic delivery).

Appellants appeal under 35 U.S.C. § 134 from a final rejection of claims 1-4. We have jurisdiction under 35 U.S.C. § 6(b).

We reverse.

STATEMENT OF CASE

Appellants' claimed invention is a tilt control method and apparatus for an optical disc recording and playback apparatus. An operation for offset detection modifying the tilt of an objective lens is performed while recording the offset adjustment signal in a test recording area that is provided on the inner side of the disc (Spec. 10:1-6).

Independent claim 1, reproduced below, is representative of the subject matter on appeal.

1. A tilt control method in an optical pickup including a tilt adjustment coil for adjusting the tilt of an objective lens, comprising the steps of:

recording an offset adjustment signal in a test recording area provided on an optical disc,

wherein said offset adjustment signal is recorded while modifying a driving signal level supplied to said tilt adjustment coil;

thereafter playing back an RF signal of said offset adjustment signal that was recorded on the optical disc; and

detecting a positive peak level (A1) and a negative peak level (A2) in the RF signal of said offset adjustment signal that was played back, and setting said driving signal level, when a β value obtained from $\beta = (A1+A2)/(A1-A2)$ reaches a maximum, as an offset value for the driving signal to be supplied to the tilt adjustment coil.

REFERENCES

Akagi	US 6,434,096 B1	Aug. 13, 2002
Matsumoto	US 7,046,600 B2	May 16, 2006 (filed Jul. 30, 2002)

The Examiner rejected claims 1-4 under 35 U.S.C. § 103(a) based upon the teachings of Akagi and Matsumoto.

Appellants contend that neither Akagi nor Matsumoto teach or suggest “(1) recording an offset adjustment signal in a test recording area provided on an optical disk, wherein the offset adjustment signal is recorded while modifying a driving signal level supplied to the tilt adjustment coil” and “(2) playing back an RF signal of the offset adjustment signal that was recorded to the optical disk” (App. Br. 10).²

ISSUE

Did the Examiner establish a prima facie case of obviousness in rejecting claims 1-4 under 35 U.S.C. § 103(a) over the combination of Akagi and Matsumoto?

FINDINGS OF FACT

1. Appellants’ invention requires recording an offset adjustment signal while modifying a driving signal level supplied to a tilt adjustment coil (cls. 1 and 3).

2. Appellants further recite playing back an RF signal of the offset adjustment signal that was recorded on an optical disc (cls. 1 and 3).

² Reference is made throughout this opinion to the Amended Appeal Brief filed June 4, 2007.

3. Finally, Appellants recite detecting a positive peak level and a negative peak level in the RF signal and setting the driving signal level as an offset value for the driving signal when a β level value reaches a maximum (cls. 1 and 3).

4. Akagi teaches an optical information recording/reproducing device in which a tilt error signal is corrected based on a pre-recorded offset signal when a rotation direction detection section detects the moving direction of the optical pickup (Abstract; col. 12, ll. 40-45).

5. Akagi teaches a control target value of the tilt angle is obtained by recording and reproducing sample data on the disk during a correction mode (col. 54, ll. 6-9).

6. Matsumoto teaches controlling the power of a laser beam irradiated onto the track of an optical disc at a given linear velocity (col. 2, ll. 2-5).

PRINCIPLES OF LAW

“[T]he examiner bears the initial burden, on review of the prior art or on any other ground, of presenting a *prima facie* case of unpatentability.” *In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992). If the Examiner’s burden is met, the burden then shifts to the Appellants to overcome the *prima facie* case with argument and/or evidence. Obviousness is then determined on the basis of the evidence as a whole and the relative persuasiveness of the arguments. *Id.*

ANALYSIS

The Examiner rejected claims 1-4 under 35 U.S.C. § 103(a) based on the teachings of Akagi and Matsumoto. Because independent claims 1 and 3 contain substantially similar limitations and Appellants have argued claims 1-4 together (App. Br. 9, 10), this rejection is addressed with respect to representative claim 1.

The Examiner finds that Akagi teaches all the features of claims 1 and 3 except a beta value detector detecting a positive peak level and a negative peak level of an RF signal and setting a driving signal when a β value reaches a maximum (Ans. 4, 6). The Examiner then finds Matsumoto discloses setting a driving signal level when a beta value reaches a maximum (Ans. 4, 5).

Appellants contend that Akagi fails to teach (a) a β value that sets a driving signal when the β value reaches a maximum and (b) that the offset adjustment signal is recorded while modifying a driving signal level supplied to the tilt adjustment coil (App. Br. 10). Appellants further contend that Akagi also does not teach or suggest playing back an RF signal of the offset adjustment signal that was recorded to the optical disk (App. Br. 10; Reply Br. 5).

Although Akagi teaches storing, beforehand, an offset amount of the tilt error signal, and then reading the stored offset (Ans. 7; FF 4), Akagi does not teach or suggest recording the offset adjustment signal while modifying a driving signal level supplied to the tilt adjustment coil (FF 1), as recited in claim 1. The Examiner's comment that Akagi suggests that the optical pickup is moving, and thus requires supplying the driving signal to the tilt adjustment coil to necessitate the movement of the optical pickup, directly

corresponds to recording the offset adjustment signal while modifying a driving signal level supplied to the tilt adjustment coil, is without merit. There is no suggestion in the portions of Akagi pointed out by the Examiner for recording the offset adjustment signal while modifying the drive signal level (Reply Br. 6). The Examiner has merely pointed out that Akagi “clearly discloses that the offset signal is stored and reproduced (reproduction of the offset signal corresponds to element (2) above)” (Ans. 7). However, as asserted by Appellants, Akagi merely discloses “recording a sample signal and reading the recorded sample signal to obtain an offset signal” (Reply Br. 6). Akagi does not “disclose modifying a signal level for the tilt adjustment coil and recording an offset adjustment signal on a disc” (Reply Br. 6), as recited in the claims. Although Matsumoto does disclose a β value (col. 11, ll. 1-4), the β value is used to set a recording laser power value and not to set an offset value for a tilt adjustment coil (FF 6). Thus, combining Akagi with Matsumoto would also not result in Appellants’ invention as Matsumoto does not cure the defects of Akagi.

The Examiner has not provided a prima facie case that the collective teachings of Akagi and Matsumoto teach or suggest Appellants’ claim 1. Therefore, claims 1-4 are not obvious over Akagi and Matsumoto.

CONCLUSION

The Examiner did not provide a prima facie case of obviousness in rejecting claims 1-4 under 35 U.S.C. § 103(a) over the combination of Akagi and Matsumoto.

Appeal 2009-0223
Application 10/706,059

DECISION

The Examiner's decision rejecting claims 1-4 is reversed.

REVERSED

KIS

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